

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE INSTALLATION OF A NEW TRAFFIC CONTROL SIGNAL AND GEOMETRIC IMPROVEMENTS AT THE INTERSECTION OF US 301 AND WASHINGTON AVENUE/TURKEY HILL ROAD IN CHARLES COUNTY. US 301 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA TWO-PHASE, FULL-TRAFFIC-ACTUATED MODE, WITH THE NORTHBOUND US 301 THROUGH TRAFFIC AND THE SOUTHBOUND US 301 LEFT TURN TRAFFIC OPERATING AS SEPARATE PHASES. THE SOUTHBOUND US 301 LEFT TURN PHASE WILL BE CONTROLLED BY A FLASHING RED SIGNAL UNTIL QUEUED VEHICLES ACTUATE A STEADY GREEN ARROW AND NORTHBOUND US 301 THROUGH TRAFFIC IS STOPPED.

SOUTHBOUND US 301 THROUGH TRAFFIC, EASTBOUND TURKEY HILL ROAD TRAFFIC AND WESTBOUND WASHINGTON AVENUE TRAFFIC WILL NOT BE SIGNALIZED.

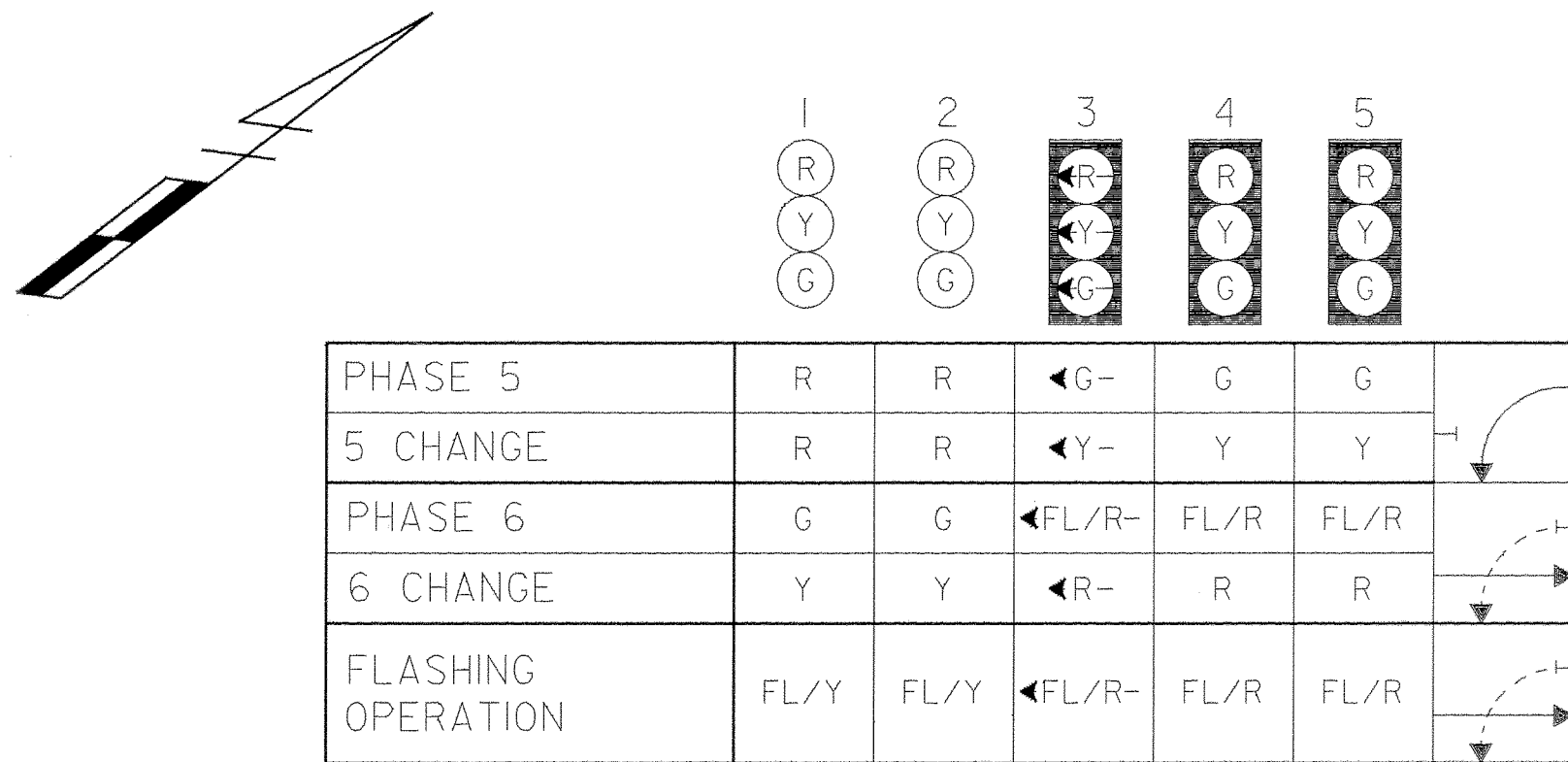
CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) TWO-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, AND ASSOCIATED HARNESS HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

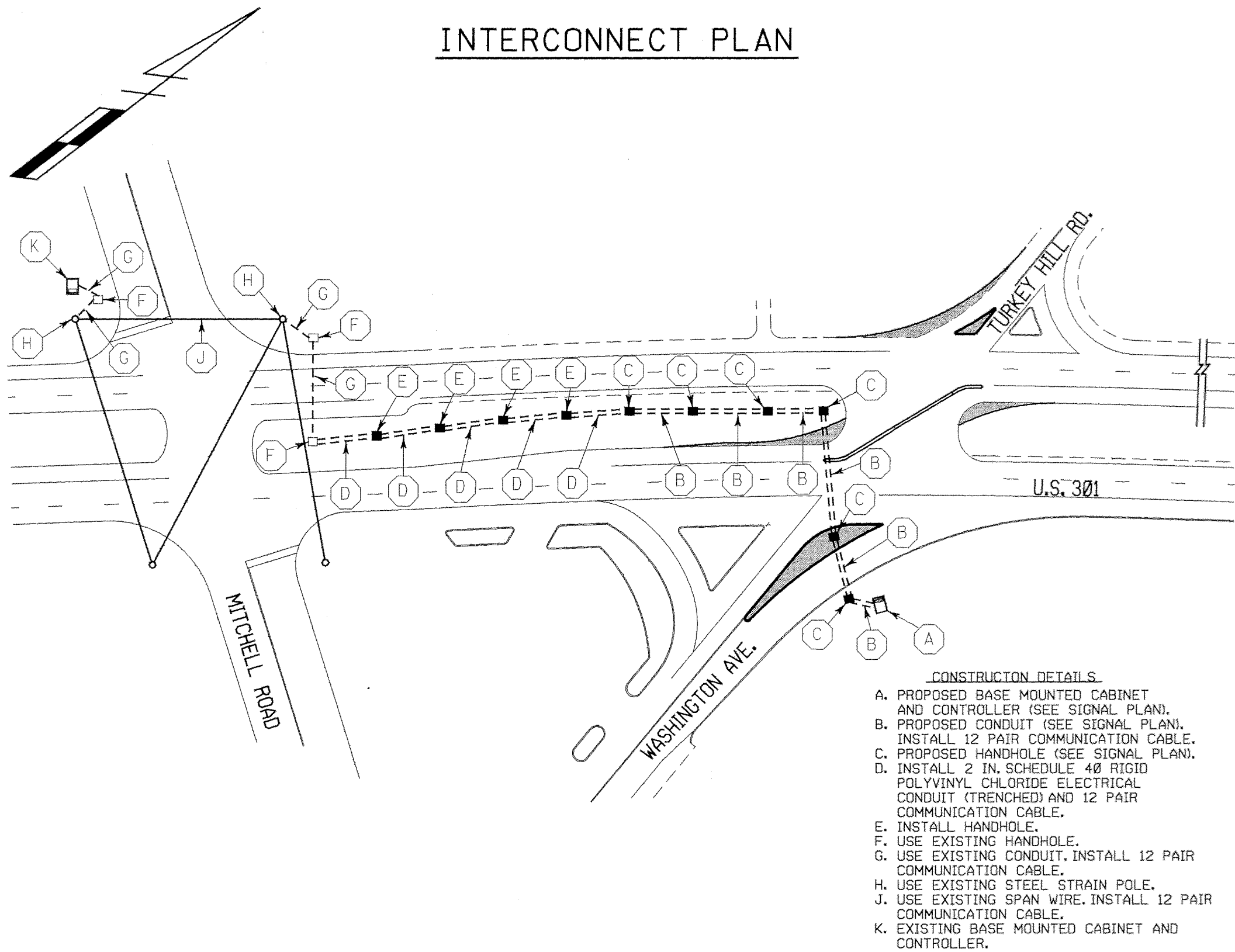
SPECIAL NOTES

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER AT (410)787-7631 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE AND PHONE NUMBER.

PHASE CHART



INTERCONNECT PLAN

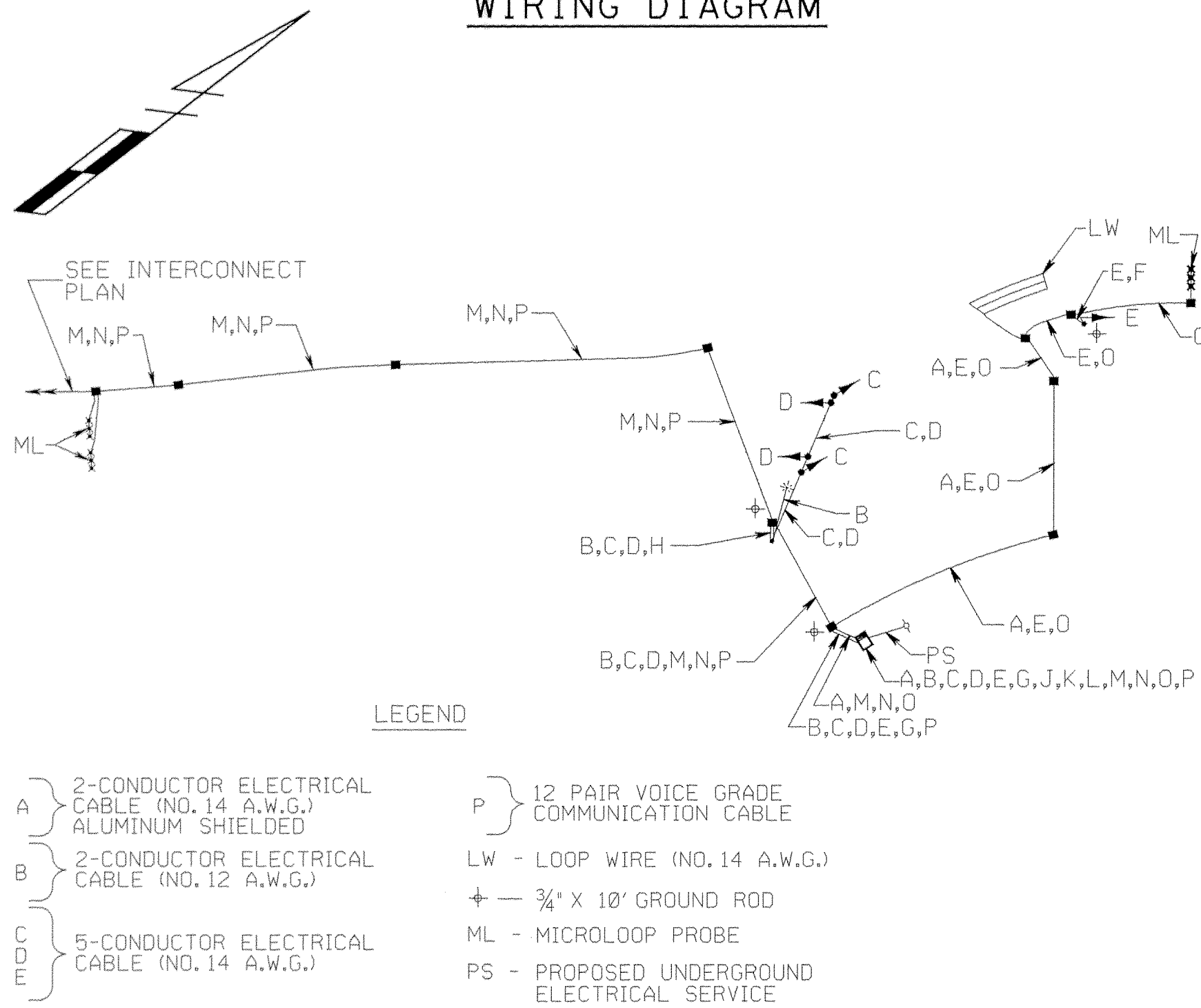


EQUIPMENT LIST

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9001	1 EACH	EIGHT-PHASE, FULL-TRAFFIC-ACTUATED, SOLID STATE DIGITAL CONTROLLER WITH TWO (2) TWO-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, INTERSECTION MONITOR WITH BATTERY BACK-UP FOR PHONE DROP, AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.
9002	2 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9003	2 EACH	12 IN., ONE-WAY, THREE-SECTION (R,Y,G) OPTICALLY PROGRAMMED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR MAST ARM MOUNTING AND TUNNEL VISORS.
9004	1 EACH	12 IN., ONE-WAY, THREE-SECTION (RA,YA,GA) OPTICALLY PROGRAMMED TRAFFIC SIGNAL HEAD WITH ADJUSTABLE BRACKET FOR PEDESTAL MOUNTING AND TUNNEL VISORS.
9005	3 EACH	MICROLOOP PROBE SET WITH 1000 FT. LEAD-IN.
9006	169 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF : - 2 EACH W3-3 SIGN (48 IN. X 48 IN.) WITH "NEW" PANEL (30 IN. X 30 IN.) GROUND MOUNTED WITH HARDWARE - 1 EACH D3-2 SIGN (VARIABLE X 32 IN.) MAST ARM MOUNTED - 1 EACH R10-6C "PROCEED ON FLASHING RED AFTER STOP" SIGN (60 IN. X 36 IN.) - 2 EACH D1-1 SIGN (VARIABLE X 24 IN.) GROUND MOUNTED WITH HARDWARE - 2 EACH R4-7 SIGN (24 IN. X 30 IN.) GROUND MOUNTED WITH HARDWARE - 4 EACH W16-1 SIGN (18 IN. X 18 IN.) GROUND MOUNTED WITH HARDWARE - 1 EACH R1-2 SIGN (36 IN. X 36 IN. X 36 IN.) GROUND MOUNTED WITH HARDWARE - 2 EACH R5-1 SIGN (30 IN. X 30 IN.) GROUND MOUNTED WITH HARDWARE - 2 EACH R3-1B SIGN (24 IN. X 30 IN.) GROUND MOUNTED WITH HARDWARE - 1 EACH ASSOCIATED SHIELD ASSEMBLY "NORTH, U.S. 301, RIGHT ARROW" (24 IN. X 51 IN.) POLE MOUNT

WIRING DIAGRAM



EQUIPMENT LIST

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	1 EACH	MAINTENANCE OF TRAFFIC
2001	18 C.Y.	TEST PIT EXCAVATION
5005	60 L.F.	24 IN. WHITE PERMANENT PREFORMED PAVEMENT MARKING TAPE
5008	100 L.F.	REMOVE EXISTING PAVEMENT MARKINGS - ANY WIDTH
6001	2538 S.F.	4 IN. CONCRETE SIDEWALK
6002	340 L.F.	STANDARD TYPE A COMBINATION CURB AND GUTTER
6003	50 L.F.	TRAFFIC BARRIER W-BEAM
6004	1 EACH	TRAFFIC BARRIER W-BEAM TRAIL END ANCHORAGE
8001	7 C.Y.	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8003	1 EACH	FURNISH AND INSTALL 14 FT. BREAKAWAY PEDESTAL POLE
8099	1 EACH	FURNISH AND INSTALL 27 FT. MAST ARM POLE AND 56 FT. ARM
8011	5 EACH	INSTALL SIGNAL HEAD
8015	3 EACH	INSTALL MICROLOOP PROBE SET
8019	1 EACH	INSTALL CONTROLLER AND CABINET-BASE MOUNT
8022	180 L.F.	FURNISH AND INSTALL SAW CUT FOR SIGNAL (LOOP DETECTOR)
8024	30 L.F.	FURNISH AND INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-METALLIC CONDUIT FOR DETECTOR SLEEVE
8025	1650 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
8027	60 L.F.	FURNISH AND INSTALL 2 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
8031	20 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 40 RIGID PVC CONDUIT-TRENCHED
8033	120 L.F.	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID PVC CONDUIT-BORED
8035	14 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8076	1 EACH	FURNISH AND INSTALL CONTROL AND DISTRIBUTION EQUIPMENT
8037	3 EACH	FURNISH AND INSTALL GROUND ROD - 3/4 IN. DIAMETER X 10 FT. LENGTH
8042	1870 L.F.	FURNISH AND INSTALL 12 PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND)
8043	360 L.F.	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING (NO. 14 A.W.G.)
8044	180 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (ALUMINUM SHIELDED)
8047	520 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 5 CONDUCTOR (NO. 14 A.W.G.)
8049	120 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 2 CONDUCTOR (NO. 12 A.W.G.)
8052	50 L.F.	FURNISH AND INSTALL STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
8053	45 L.F.	FURNISH AND INSTALL ELECTRICAL CABLE- 1 CONDUCTOR (NO. 4 A.W.G. - THHN/THWN)
8054	160 L.F.	FURNISH AND INSTALL WOOD SIGN SUPPORTS (4 IN. X 4 IN.)
8056	126 S.F.	INSTALL GROUND MOUNTED SIGN
8057	37 S.F.	INSTALL OVERHEAD SIGN
8059	1 EACH	FURNISH AND INSTALL 250 WATT HPS LUMINAIRE WITH PHOTOCELL
8060	1 EACH	FURNISH AND INSTALL 20 FT LIGHTING BRACKET FOR TRAFFIC SIGNAL STRUCTURE
8067	1 EACH	USE EXISTING DISK AND AS-BUILT TRAFFIC CONTROL DEVICES
5001	295 L.F.	6 IN. YELLOW PERMANENT PREFORMED PAVEMENT MARKING TAPE
5002	630 L.F.	6 IN. WHITE PERMANENT PERFORMED PAVEMENT MARKING TAPE
NEG.	50 C.Y.	COMMON BORROW
NEG.	610 L.F.	SAW CUTS (FULL PAVEMENT DEPTH)
NEG.	160 C.Y.	REMOVAL OF EXISTING PAVEMENT
3001	25 L.F.	STRAW BALES
3002	400 L.F.	GEOTEXTILE CLASS F FOR SLOPE SILT FENCE
NEG.	1 EACH	TRAFFIC BARRIER, W-BEAM TYPE 2 END FLARE
NEG.	120 L.F.	2 FT. MONOLITHIC CONCRETE MEDIAN, TYPE A-1.

SIGNAL NO. ###



MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION

GENERAL INFORMATION PLAN
US 301 AND WASHINGTON AVE/TURKEY HILL ROAD

DATE: 9-14-95	DRAWN BY: S. BLOSS	F.A.P. NO. STPG-00064442E	PLAN SHEET NO.: T5-3532GI	SHEET NO. OF
SCALE: NONE	DESIGNED BY: T. ZAYDEL	S.H.A. NO. AW-104-501-585		
APPROVED BY:	CHECKED BY: T. HANNAN	COUNTY: CHARLES		



Whitman, Requardt & Associates
ENGINEERS AND PLANNERS
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Baltimore, Maryland 21218
(410) 235-3450

REVISIONS	APPROVALS	REVISIONS
	CHEF, SIGNAL DESIGN SECTION	
	ASST. DISTRICT ENGINEER, TRAFFIC	
	CHEF, TRAFFIC ENGINEERING DESIGN DIVISION	
	DIRECTOR, OFFICE OF TRAFFIC & SAFETY	